NRC FORM 618
(8-2000)
10 CFR 71

U.S. NUCLEAR REGULATORY COMMISSION

CERTIFICATE OF COMPLIANCE
FOR RADIOACTIVE MATERIAL PACKAGES

a. CERTIFICATE NUMBER	b. REVISION NUMBER	c. DOCKET NUMBER	d. PACKAGE IDENTIFICATION NUMBER	PAGE		PAGES
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2. PREAMBLE

a. This certificate is issued to certify that the package (packaging and contents) described in Item 5 below meets the applicable safety standards set forth in Title 10, Code of Federal Regulations, Part 71, "Packaging and Transportation of Radioactive Material."

b. This certificate does not relieve the consignor from compliance with any requirement of the regulations of the U.S Department of Transportation or other applicable regulatory agencies, including the government of any country through or into which the package will be transported

3. THIS CERTIFICATE IS ISSUED ON THE BASIS OF A SAFETY ANALYSIS REPORT OF THE PACKAGE DESIGN OR APPLICATION

a. ISSUED TO *(Name and Address)*

National Institute of Standards and Technology
Gaithersburg, MD 20899

b. TITLE AND IDENTIFICATION OF REPORT OR APPLICATION

National Institute of Standards and Technology application dated February 7, 1992, as supplemented.

4. CONDITIONS

This certificate is conditional upon fulfilling the requirements of 10 CFR Part 71, as applicable, and the conditions specified below.

5.

(a) Packaging

(1) Model No.: ST

(2) Description

A closed steel pipe for the transport of an unirradiated research reactor fuel element. The pipe is a 5-1/2-inch OD carbon steel pipe, approximately 71 inches in length, with a closed bottom end and flanged top end. The top end is closed by a cover plate, which is 1/4-inch thick, and 6-1/2 inches in diameter, and a gasket. The cover plate is secured to the pipe flange by 8 cap screws. A wooden nozzle support and top support position the fuel assembly within the pipe. The package weighs approximately 75 pounds, including the fuel element.

(3) Drawing

The packaging is constructed and assembled in accordance with National Institute of Standards and Technology Drawing No. D-04-048, Sheet 1, Rev. 4, and Sheet 2, Rev. 4.

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5. (b) Contents

(1) Type and form of material

Unirradiated NBSR fuel element composed of enriched uranium and aluminum.

(2) Maximum quantity of material per package

One fuel element containing not more than 360 grams U-235. The total quantity of radioactive material within a package may not exceed a Type A quantity.

(c) Criticality Safety Index 50.0

6. In addition to the requirements of Subpart G of 10 CFR Part 71, the package shall be prepared for shipment, operated, and maintained in accordance with the loading, unloading, and quality assurance procedures in the application. Prior to each shipment, the shipper shall make the determinations specified in the NIST "ST" Series Shipping Container Shipper's Checklist in the application.

7. Transport by air is not authorized.

8. The package authorized by this certificate is hereby approved for use under the general license provisions of 10 CFR 71.17.

9. Revision No. 5 of this certificate may be used until January 31, 2009.

10. Expiration date: November 30, 2011.

REFERENCES

National Institute of Standards and Technology application dated February 7, 1992.

Supplements dated: February 14, 1992; August 7, 1996; August 17, 2001; September 5, 2006; September 28, 2007; and January 9, 2008.

FOR THE U.S. NUCLEAR REGULATORY COMMISSION

Robert A. Nelson, Chief
Licensing Branch
Division of Spent Fuel Storage and Transportation
Office of Nuclear Material Safety
and Safeguards

Date: January 30, 2008

UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

SAFETY EVALUATION REPORT
Model No. ST Package
Certificate of Compliance No. 9246
Revision No. 6

SUMMARY

By application dated September 28, 2007, as supplemented January 9, 2008, the National Institute of Standards and Technology (NIST) submitted a revision request for the Model No. ST package. NIST requested changes to package design drawings.

EVALUATION

NIST requested revision of Certificate of Compliance No. 9246 for the Model No. ST package by application dated September 28, 2007, as supplemented January 9, 2008. NIST specifically requested changes to NIST Drawing No. D-04-048 (Sheets 1 and 2, Rev. 3) Shipping Container Model "ST" Series. The staff reviewed the documents referenced in the certificate and determined that the required documentation was available and complete.

NIST's approved Quality Assurance (QA) program contains a "package specific" QA Program to apply only to those activities associated with the Model No. ST package. This package was fabricated at NIST according to commercially accepted engineering standards using off-the-shelf components. The Model No. ST packaging itself performs no specific safety function during transport (other than Type A packaging) since both its contents and the quantity of packages for shipment is limited accordingly. Therefore, staff agrees that drawing changes do not affect the ability of the package to meet the requirements of 10 CFR Part 71. The Certificate of Compliance was changed to reflect Drawing No. D-04-048 (Sheets 1 and 2, Rev. 4).

Condition No. 7 specifies that transport by air is not authorized.

Condition No. 9, authorizes the use of the previous revision of the certificate for a period of approximately one year.

CONCLUSION

The revision to the drawing does not affect the ability of the package to meet the requirements of 10 CFR Part 71.

Issued with Certificate of Compliance No. 9246, Revision No. 6,
on January 30, 2008.